



PREVALENCE OF HYPERTENSION AMONG THE ADULTS IN KOMERIKA VS UTTUKURU NELLORE

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ABSTRACT

Background: Untreated high blood pressure may damage organs in the body and increase the risk of heart attack, stroke, and brain hemorrhage. Elevated blood pressure is rising nearly 30 percent in teens, and by 2025, hypertension will affect 1.56 billion adults worldwide. This is a growing health concern.

Aim: to assess the prevalence of hypertension

Setting and Design: The study was conducted in Komerika (coastal area) and Uttukuru (non coastal area) by using a descriptive design.

Materials and Methods: A total of 500 samples were included in this study. Among this, 250 samples belongs to coastal area and 250 samples belongs to non coastal area by using convenience sampling technique.

Statistical Analysis Used: The collected data was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the objectives of the study.

Results: In Komerika, Out of 250 samples, With regard to the category of the blood pressure (20.8%) are stage-I, 15(6%) are stage-II, 1(0.4%) are stage-III, 33(13.2%) are grade-I, and 5(2%) are grade-II isolated systolic hypertension. Known Hypertensive cases are 50(20%), Newly diagnosed cases are 56(22.4%). With regard to BMI, among 250 samples 18(7.2%) were overweight and 5(2%) were obese. in Uttukuru, among 250 samples, 85(34%) are stage-I, 7(2.8%) are stage-II, 48(19.2%) are grade-I, and 7(2.8%) are grade-II. Known Hypertensive cases are 96(38.4%). Newly diagnosed cases are 51(20.4%). With regard to BMI among 250 samples 49(19.6%) were overweight and 24(9.6%) were obese.

Conclusion: The above results shown that blood pressure values are high in the Uttukuru (non coastal area) than Komerika (coastal area).

Key Words: hypertension, non coastal area, coastal area, heart attack, stroke.

1. INTRODUCTION

Blood pressure is the pressure exerted by circulating blood upon the walls of blood vessels, and is one of the principal vital signs¹. Globally, the overall prevalence of hypertension in adults aged 25 years & over was around 40% in 2008. The number of people with hypertension rose from 600 million in 1980 to 1 billion in 2008². The increasing prevalence of hypertension is attributed to population growth, ageing and behavioral risk factors, such as unhealthy diet, harmful use of alcohol, lack of physical activity, excess weight and exposure to persistent stress³. Hypertension is a major risk factor for NCDs like stroke, cardiovascular disease and chronic kidney disease. Complications of hypertension account for 9.4 million deaths worldwide every year⁴. Hypertension is responsible for 45% of deaths due to heart disease and 51% of deaths due to stroke⁵. In India, 23.10% of men and 22.60% of women over 25 years suffer from hypertension⁶.

One in three adults worldwide has high blood pressure. Hypertension increases the risk of heart attack, stroke, kidney failure and much other associated co morbidity. Treating raised blood pressure and maintaining it below 140/90 mmHg is associated with a reduction in cardiovascular complication. The theme for World Health Day (WHD) 2013 is "high blood pressure". The goal of WHD 2013 is to reduce heart attacks and strokes. Keeping in line with the WHO, Government of India, Country Cooperation Strategy, the WHO 2013 events in India are aimed at raising the awareness amongst national policymakers, program managers and other stakeholders on the need to strengthen the Indian health system to make it competent enough to respond to hypertension and related co morbidities⁷.

Kantha, K and Indira, A. (2015) conducted a cross sectional study on prevalence of hypertension among the adults in coastal and non coastal areas. A total of 5000 samples were included in the study. In that 2500 samples belongs to coastal areas and 2500 samples belongs to non coastal areas. The prevalence of stage-I hypertension in coastal areas is 460(18.4%) but in non coastal areas it is 1413(56.50%). The results indicate that there is high prevalence of hypertension in non coastal areas than coastal areas⁸.

Arumugam Indira et.al. (2015) conducted a study on prevalence of prehypertension among the adults in coastal and non coastal areas. The study results shown that regarding prehypertension in SBP, in coastal areas 1129(45.16%) and in non coastal areas 971(38.84%). The results indicate that there is high prevalence of pre hypertension in coastal areas than non coastal areas. Further studies are needed to find out the reasons and measures to control

high blood pressure is necessary³.

Even today there is scarcity of the studies in coastal and non coastal areas of India. With this background, present study has been undertaken to study the prevalence of hypertension.

2. Objectives of the Study

- To assess the prevalence of hypertension among adults of coastal and non coastal areas.
- To identify the risk factors of hypertension among adults of coastal and non coastal areas.
- To compare the prevalence of hypertension between coastal and non coastal areas.
- To find association between the prevalence of hypertension with selected socio demographic variables.

3. Detailed Research Plan

Research Approach: Quantitative Approach.

Research Design: Descriptive design.

Research Setting: The study was conducted in Komerika (coastal area) and Uttukuru (non coastal area) by using a descriptive design.

Coastal area means areas within 2km from mean low water mark (MLWM) or mean high water mark (MHWM).

Non coastal area means areas far 2km from mean low water mark (MLWM) or mean high water mark (MHWM).

Sampling Technique: Convenience sampling technique

Sample Size: A total of 500 samples were included in this study. Among this, 250 samples belongs to Komerika (coastal area) and 250 samples belongs to Uttukuru (non coastal area).

4. RESULTS AND DISCUSSION:

Comparison of Blood Pressure in Komerika and Uttukuru.

Table 1. Comparison of Blood Pressure in Komerika and Uttukuru.

(N=250)

Blood Pressure Category	KOMERIKA		UTTUKURU		Correlation coefficient	Standard deviation
	(f)	(%)	(f)	(%)		
Optimal	22	8.8%	5	2%	0.02	37.02
Norma	122	48.8%	15	6%		
High Normal	0	0.00%	83	33.2%		
Stage-I	52	20.8%	85	34%		
Stage-II	15	6%	7	2.8%		
Stage-III	1	0.4%	0	0.00%		
Grade-I	33	13.2%	48	19.2%		
Grade-II	5	2%	7	2.8%		

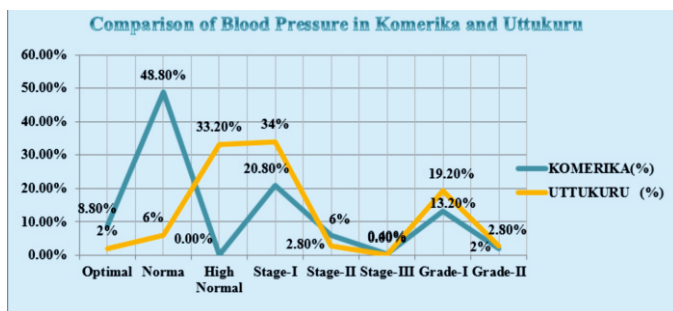


Fig. 1: Comparison of Blood Pressure in Komerika and Uttukuru

The prevalence of stage-I BP in coastal area is 52(20.8%) but in non coastal areas it is 85(34%). The correlation coefficient value is highly significant (0.02) and the standard deviation is 37.02

Comparison of Body Mass Index In Komerika and Uttukuru

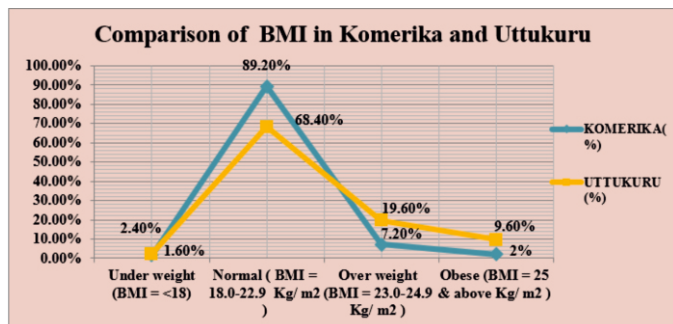


Fig. 2: Comparison of Body Mass Index in Komerika and Uttukuru

The prevalence of overweight samples in coastal area is 18 (7.2%), obesity is 5(2%) but in non coastal areas it is 49(19.6%) and 24(9.6%). The correlation coefficient value is highly significant (0.98) and the standard deviation is 85.43.

Association of Socio Demographic Data with the Blood Pressure in Komerika:

There is a significant association of demographic variables with age, family, sleeping hours, amount of oil used for per day, intake of fish, are you a known hypertensive and remaining are non significant.

Association of Socio Demographic Data with the Blood Pressure in Uttukuru:

There is a significant association of demographic variables with age, type of ventilation, sleeping hours, food pattern, Type of salt used, entertainment, use of Biryani, hotel food, intake of fish, are you a known hypertensive and remaining are non significant.

5. CONCLUSION

- The above results shown that grade-1 and grade-2 isolated systolic hypertension values are higher in the Uttukuru (non coastal area) than in the Komerika (coastal area).
- Among hypertension cases the prevalence of obesity is more in non coastal area than coastal area.

- The variables like Age, exercise, Type of oil used for cooking, Type of salt used, habits, intake of fish, are you having stress and are you a known hypertensive are the influencing risk factors for the development of hypertension among the adults.

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